

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)
13. (Cancelled)
14. (Cancelled)
15. (Previously Presented): An integrated pressure control system for planarizing a workpiece comprising:
  - a multizone workpiece carrier having a plurality of pressurizable zones;
  - a pressure control system mounted to said carrier for controlling pressure provided to said plurality of pressurizable zones; and

a rotary union mounted on said carrier for connecting electrical lines to said pressure control system.

16. (Previously Presented): The integrated pressure control system of claim 15 further comprising an automatic calibration system for calibrating said pressure control system.

17. (Previously Presented): The integrated pressure control system of claim 15 wherein said pressure control system comprises at least one pressure transducer.

18. (Previously Presented): The integrated pressure control system of claim 17 wherein said pressure control system further comprises at least one valve.

19. (Previously Presented): The integrated pressure control system of claim 15 wherein said rotary union further connects an air supply line and an air exhaust line to said pressure control system.

20. (Previously Presented): A workpiece carrier comprising:

a carrier housing;

a workpiece bladder coupled to said housing, said workpiece bladder having a surface configured to press against a surface of a workpiece;

at least one pressure transducer mounted to said carrier housing for controlling pressure provided to said workpiece bladder; and

a rotary union mounted to said carrier for connecting said at least one pressure transducer with a control board.

21. (Previously Presented): The workpiece carrier of claim 20 wherein said bladder comprises a plurality of pressurizable zones and each zone has a pressure transducer for monitoring pressure to that zone.

22. (Previously Presented): The workpiece carrier of claim 20 further comprising at least one valve mounted to said carrier.

23. (Previously Presented): The workpiece carrier of claim 20 wherein said control board is mounted to the carrier.

24. (Cancelled)

25. (Withdrawn): An integrated pressure control system for planarizing a workpiece comprising:

- a multi-zone workpiece carrier having a plurality of pressurizable zones;

- a multi-port electric rotary union mounted to a top of the multi-zone workpiece carrier;

- a multi-port pneumatic rotary union mounted to the top of the multi-zone workpiece

carrier; and

- a control board for controlling the multi-port electric rotary union.